

1 **I. CLAIMS**

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3 What is claimed is:

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5 1. A pool cleaner control device comprising:

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7 A) a skimmer assembly submerged in a body of water and having
8 first housing means with a bottom wall including a bottom
9 outlet port and a filter basket assembly mounted within said
10 first housing means;

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12 B) cover means mounted over said filter basket assembly having
13 first and second inlet through openings and a shaft through
14 opening, said cover means further including valve means for
15 selectively closing said first inlet through opening;

16
17 C) second housing means including an internal wall and a bottom
18 wall, and said second housing means being mounted below
19 said cover means and within said filter basket assembly;

20
21 D) piston means including a bottom surface and a top surface and
22 being mounted within said second housing means, said piston
23 means being axially movable within said second housing
24 means and further including an elongated tubular shaft with
25 first and second ends said first end mounted through said
26 piston means and extending to said bottom surface and said
27 shaft slidably passing through said cover means with said
28 second end extending outwardly through said shaft through

opening a predetermined distance above said cover means and inside said body of water;

E) a flexible diaphragm skirt having a substantially hemispherical shape and including a peripheral edge, said diaphragm skirt mounted to and covering said bottom surface, and said peripheral edge mounted to said internal wall to prevent water inside said second housing and below said diaphragm skirt from passing above said diaphragm skirt;

F) means for restricting the diameter inside said elongated tubular shaft so that water enters through said second inlet through opening and through said second end thereby forcing said piston means to move towards said cover means and when said piston means reaches said cover means said valve means is opened permitting water to enter to said first inlet through opening and closing said second inlet through opening; and

G) a suction pump having an inlet connected to said bottom outlet port so that the water displaced from said first housing means is replaced with water passing through said cutout and said filter basket assembly from said second housing and the space left is taken by water passing through said second inlet opening and by said piston means being urged upwardly and limited by said restricting means until said piston means reach said cover means and said actuating means cause said valve means to open.

1 2. The device set forth in claim 1 further including:
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3 H) spring means for urging said piston means away from said
4 cover means.
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6 3. The device set forth in claim 2 wherein said actuating means
7 includes a flexible means having third and fourth ends with said
8 third end being attached to said second end and said fourth end
9 being cooperatively engaged to said valve means to cause said valve
10 means to open and close in response to the position of said second
11 end.
12

13 4. A pool cleaner control device comprising:
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15 A) a skimmer assembly submerged in a body of water and having
16 first housing means with a bottom wall including a bottom
17 outlet port and a filter basket assembly mounted within said
18 first housing means;
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20 B) cover means mounted over said filter basket assembly having
21 first and second inlet through openings and a shaft through
22 opening, said cover means further including valve means for
23 selectively closing said first inlet through opening;
24

25 C) second housing means including an internal wall and a bottom
26 wall, and said second housing means being mounted below
27 said cover means and within said filter basket assembly;
28

1 D) piston means including a bottom surface and a top surface and
2 being mounted within said second housing means, said piston
3 means being axially movable within said second housing
4 means and further including an elongated tubular shaft with
5 first and second ends said first end mounted through said
6 piston means and extending to said bottom surface and said
7 shaft slidably passing through said cover means with said
8 second end extending outwardly through said shaft through
9 opening a predetermined distance above said cover means and
10 inside said body of water;

11
12 E) a flexible diaphragm skirt having substantially the shape of a
13 cup and including a peripheral edge, said diaphragm skirt
14 mounted to said bottom surface, said peripheral edge
15 cooperatively coacting with said internal wall to prevent water
16 inside said second housing and below said diaphragm skirt
17 from passing above said diaphragm skirt;

18
19 F) means for restricting the diameter inside said elongated tubular
20 shaft so that water enters through said second inlet through
21 opening and through said second end thereby forcing said
22 piston means to move towards said cover means and when said
23 piston means reaches said cover means said valve means is
24 opened permitting water to enter to said first inlet through
25 opening and closing said second inlet through opening; and
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27 G) a suction pump having an inlet connected to said bottom outlet
28 port so that the water displace from said first housing means is

1 replaced with water passing through said cutout and said filter
2 basket assembly from said second housing and the space left is
3 taken by water passing through said second inlet opening and
4 by said piston means being urged upwardly and limited by
5 said restricting means until said piston means reach said cover
6 means and said actuating means cause said valve means to
7 open.
8

9 5. The device set forth in claim 4 further including:
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11 H) spring means for urging said piston means away from said
12 cover means.
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14 6. The device set forth in claim 5 wherein said actuating means
15 includes flexible means having third and fourth ends with said third
16 end being attached to said second end and said fourth end being
17 cooperatively engaged to said valve means to cause said valve means
18 to open and close in response to the position of said second end.